Statement by

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Hearings on Climate Change and National Security

I am honored to address this hearing on the implications of the Clean Energy Jobs and American Power Act on American security. For the record I would like to begin with two important stipulations. First, I am a historian and a military futurist, not an environmental expert. I have deep reservation concerning the science behind the warnings about global climate change contained in this bill but I will not argue them here. Instead I will attempt to contrast the security risk inherent in a possible long term rise in earth's temperature with the shorter term risks inherent in a potential loss of fossil fuel production and economic slowdown that will likely be the consequence of this bill. Second, I have no relationship whatsoever with the energy industry or any corporation or think tank that advocates for these industries. I am not being paid for my testimony by anyone.

Our intellectual and popular culture thrives on speculating about the horrific effects of mega disasters. All too often we read about how global conflagrations will emerge as a consequence of world hunger, pandemics, a population explosion, water shortage, asteroid strikes and, lately of course, global warming. To be sure such unlikely events would cause enormous suffering and societal dislocation. But the historical record strongly suggests that such devastating humanitarian disasters rarely if ever result in large scale wars. In fact more often wars cause pandemics, starvation and societal dislocation rather than result from them.

If the more popular climate change models are right (and I'm not sure they are) perhaps some time in the very distant future, perhaps several generations from now glacial fed rivers might dry up, sea levels might rise and arid areas of the planet might become more waterless. Some environmental scientist conclude that such a climatic crises will precipitate human friction in the form of mass migrations away from ocean fronts, river valleys and regions of the world suffering from draught. This argument has been accepted by some military theoreticians. The problem is that even if such disasters occur they will not likely be a serious cause for war, particularly a war between a major peer competitor and the United States. In fact a brief turn through the historical record suggest that periods of great societal stress causing enormous suffering and dislocation reduces the likelihood of state versus state conflict. Mass misery caused by climatic and environmental disasters occur so slowly that populations adjust through migration and social atrophy. Such phenomena create social miasma that inhibits rather than fuels aggression. In a word states about to collapse from the consequences of natural disasters are more concerned with survival than picking a fight with a global competitor.

Wars that affect major nation states will be precipitated in the future by the same prosaic and predictable factors that have ignited human conflict for millennia: miscalculations by egomaniacal leaders, the coveting of territory, contests over strategic resources such as oil, simple greed, religious or ideological fanaticism as well as many other forms of political, social and tribal friction. A far greater strategic threat, at least in the shorter term defined by the next twenty years, will come from a dramatically reduced access to raw and refined fossil fuels that will likely be an unintended consequence of this bill. This argument rests on two premises: first, that fossil fuels will continue to power our war making capability for generations; and, second, that this bill may reduce our ability to "surge" fossil fuel production should we face the threat of large scale war in the future.

There is no scientific evidence that suggests that wars will be propelled and sustained by any power source other than fossil fuels. During the late nineties I created and superintended the "Army After Next" series of strategic wargames. These games are still being conducted as the "Unified Quest" strategic games at the Army War College. In virtually every game we asked scientists from think tanks, the government and academia to offer evidence that fossil fuels will be replaced by other sources of power such as hydrogen, nuclear and electricity. During these and many subsequent games and studies, in spite of assiduous efforts to postulate alternatives, so far none have been found. The reasons are simple, consistent and unambiguous: we win wars by producing fighting machines more capable than the enemy's. Dominance in machine warfare on the land, sea and in the air requires fuels that generate the greatest combustion and heat from the smallest volume. Only fuels derived from petroleum will be capable of propelling aircraft, most ships and ground vehicles on and over battlefields where performance is measured by how efficiently fuels can be transferred into energy.

Big wars will require that the nation "surge" its war-making capability in a very short time. To be sure the United States will gain substantial advantage on future battlefields by exploiting its superior information technology. Such an advantage will be sustained with a relatively low fuel cost. But industrial age machines must still be produced in large numbers to win against a large scale competitor. Ships, vehicles, guns and aircraft will continue to be made predominately from steel, aluminum, rubber and titanium. Ammunition and missiles will continue to require nitrates for explosives. An all of these machines and the materiel to support them must be transported to the theater of war and across and over the battlefield with fossil fueled engines.

Since the beginning of the twentieth century the single most critical resource for the national security health of major powers has been petroleum. After the Royal Navy converted from coal to steam propulsion during the inter war years access to oil in the Middle East through the Suez Canal became a corner stone of British defense and diplomatic policies. Perhaps the single most compelling motive for Japan's surprise attack on Pearl Harbor was the need to gain access to the oil rich Dutch East Indies. After months of failure the American strategic bombing campaign against Nazi Germany hit pay dirt when the central target shifted from industrial to oil production in late 1944. It goes without saying that much of American foreign policy and much of our war-making efforts have been devoted to protecting our access to overseas oil resources.

If the forecasts are correct this bill will, over the decades, slowly diminish the ability to produce fossil fuels in the strategic confines of American territory. According to one study American refining capacity could plummet because the cost of doing business would soar. Production at U S refineries would drop while production in counties that do not limit green house emissions would rise. We will have no assurance that off shore refining would take place in regions secure from foreign power influence. According to this study the United States would have to increase its petroleum imports by one fifth by 2030 as our domestic production would plummet by as much as 25%. Should we suffer such consequences the ability of the United States to surge its wartime energy production might well be held hostage to foreign interference and, sadly, our young men and women might well find themselves permanently stationed in areas of great danger and volatility in order to secure American access to foreign oil.

In a democracy the military power of the state rests ultimately on its economic health and resiliency. This bill would in fact reduce American industrial capacity as the very industrial age industries essential for the production of warfighting materiel move overseas to avoid the punishing consequences of this bill. According to recent studies this bill would result in a loss of industrial production of over 6% by 2030 and a consequent loss of over half a million manufacturing jobs. These are the very workers who we would rely on to produce the materiel needed to win a future war against a major competitor.

Advocates of this bill believe passionately that it will reduce America's production of greenhouse gasses. Some suggest that it will create jobs. They may or may not be correct. But nothing in this bill will either reduce the likelihood of American involvement in future wars nor will it improve America's war making capabilities. Indeed over the decades the consequences of the bill might well reduce American influence and retard our ability to deter and fight wars in the future.

Secure access to sources of oil has been a major goal of every major nation's war making strategy since the invention of the internal combustion engine. The Japanese started a war to secure access to it, Nazi Germany lost a war because of it and, without increasing American domestic production, our armed services might well be engaged in shooting wars over access to it for many generations. Reducing green house gasses is an important national goal. But we should never risk the lives of our men and women in uniform nor increase our vulnerability a future enemy to achieve it.